



# **GLAST Export Briefing**

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# Export Basics



# What is an export?

- The ITAR Part 120.17 defines an export as any of the following activities;
  - Sending or taking an article out of the United States in any manner, except by mere travel outside the United States by a person with knowledge of technical data.
  - Transferring registration, control, or ownership to a foreign person.
  - Disclosing (including oral or visual disclosure) or transferring an article to an embassy, any agency or subdivision of a foreign government.
  - Performing a service on behalf of or for the benefit of a foreign person.
  - The transfer of technical data or performance of a defense service to/for a foreign person anywhere is an export.



# Who is a “Foreign Person”?

- Any person who:
  - IS NOT a US citizen
  - IS NOT a lawful permanent resident of the U.S. (“green card” holder)
  - IS a US citizen or lawful permanent resident, but is employed by or otherwise represents a foreign person or interest
- Also includes foreign companies or other entities not incorporated to do business in the U.S. and also Foreign Governments
- Also includes foreign subsidiaries of US companies (incorporated in a foreign country)

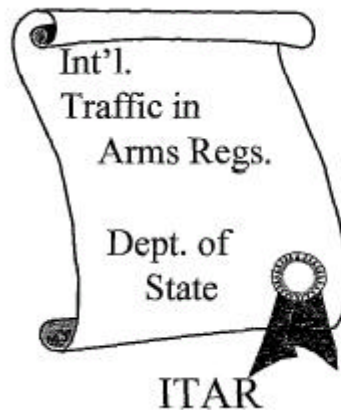


# What Agencies Oversee Export Controls?

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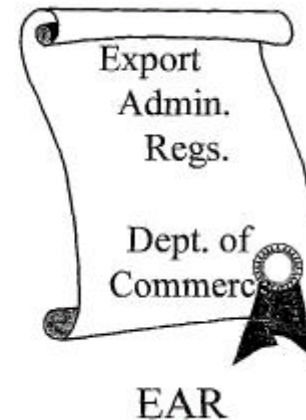
## Department of State Arms Export Control Act (AECA)



The AECA governs the export of defense articles and services, including most space-related technologies and systems.

It is administered by the Directorate of Defense Trade Controls (DDTC), Department of State.

## Department of Commerce Export Administration Act (EAA)



The EAA governs the majority of U.S. commercial exports (civil and dual-use), as well as ISS hardware.

It is administered by the Bureau of Export Administration (BXA), Department of Commerce.



# ITAR vs. EAR

- At KSC, what exports fall under the ITAR?
  - All Expendable Launch Vehicles, components, ground support equipment, and related services, and all associated Technical Data and services.
  - All Satellites, ground support equipment, and related services, and all associated Technical Data and services.
  - Defense services are exported under a special kind of license called a Technical Assistance Agreement (also an International Agreement)
- What exports fall under the EAR?
  - Most International Space Station modules and components, but not ground support equipment, detailed design data, nor design services. (The excluded items are covered by the ITAR.)
  - Civil items like laptops, motor vehicles, etc.



# KSC Exports (ITAR)



# ITAR Controlled Exports

- There are two main categories of items controlled by the International Traffic in Arms Regulations (ITAR):
  - “Defense Articles”
  - “Defense Services”





# What is a “Defense Article”?

- “Defense articles” defined:
  - According to the ITAR, a Defense Article is any item that is on the United States Munitions List (USML), including associated technical data. USML Category IV and Category XV are of special importance to NASA.
  - Any technical data about a defense article required for the design, development, production, or manufacture of defense articles.
  - Defense articles are not exclusively military items; e.g., with the exception of the ISS, all spacecraft are considered defense articles.



# What is a “Defense Service”?

- According to the ITAR, Defense Service means:
  - Assisting or training foreign persons in the design, development, engineering, manufacture, production, assembly, testing, repair, maintenance, modification, operation, demilitarization, destruction, processing or use of defense articles
  - Furnishing technical data about a defense article to foreign persons



# United States Munitions List (USML) Category IV

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- Launch vehicles, guided missiles, ballistic missiles, rockets, torpedoes, bombs, and mines
  - Apparatuses, devices, materials,...for their handling, control, and monitoring.
  - Space launch system power plants.
  - Ablative materials...for articles in this category.
  - All specifically designed, modified, configured, systems, pieces, and parts for the above.
  - Technical data for the above.



# The United States Munitions List (USML) Category XV

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- Spacecraft, including communications satellites, remote sensing satellites, scientific satellites, research satellites, navigation satellites, experimental and multi-mission satellites
  - Ground control stations for Tracking, Telemetry and Control
  - GPS designed or modified for military use.
  - All uniquely designed, modified, configured systems, pieces, and parts for the above.
  - Technical data for the above.



# Making an Export Legal

- NASA
  - International Agreements (NASA)
  - Exemptions permitted by the ITAR
  
- Launch Service Provider and contractors
  - Licenses (DSP-5, DSP-61, DSP-73, DSP-85, DSP-119)
  - Agreements
    - » Technical Assistance Agreements (TAA)
    - » Manufacturing Licensing Agreements (MLA)
  - Exemptions permitted by the ITAR



# NASA's International Agreement

- NASA's international agreements are the basis for NASA foreign cooperative activity.
- These agreements define the responsibilities of the parties, the scope of the work to be performed, and the terms and conditions under which the cooperation will be effected.
  - All NASA international agreements contain a clause on transfers of controlled goods and data, in both directions.
- All agreements place restrictions on third-country transfers.
  - Contractors and subcontractors are required to adhere to the same terms as the government.



# Technical Assistance Agreement

- Industry-to-industry agreement on scope of work
- Required for provision of defense services, for example:
  - Training of foreign persons in:
    - » Design, Engineering, Development, Production, Processing , Manufacturing , Operation, Overhaul, Repair, Maintenance, Modification, or construction of a 'Defense Article"
- Used by Launch Service Providers and NASA contractors



# When to Start the Process

- VERY EARLY!
- Put milestones on your program schedule
  - (NASA) Average flow time to obtain approval for a modification to an International Agreement – 180 days
  - (Contractors) Average flow time to write and then obtain government approval for a license - 60 days
  - (Contractors) Average flow time to write and then obtain government approval for a TAA or MLA - 180 days
- Develop a Technology Transfer Control Plan
- Develop the International Agreement
- Develop the Work Plan
- Notify contractor's of licensing needs
- Be Proactive - Don't assume someone else is taking care of the license/approval.





# Consequences of Late Starts

- Approval May Not Come in Time to:
  - Meet critical program schedules
  - Start Work
  - Ship Hardware or Technical Data
  - Hold Technical Discussions & Meetings



# Before Attempting to Export

- Know & Review the Specific Information on the license or agreement.
  - Wait to export until the agreement or license is fully in effect.
  - If ANY information changes, contact your Export Compliance Manager, for an amendment or additional licensing.
  - If the information on the license doesn't match the shipping paperwork, **THE SHIPMENT WONT CLEAR CUSTOMS!**



# Responsibilities / Violations

- Responsibilities
  - Licensees / Programs are responsible for acts of their employees, agents, and all authorized persons to whom possession of licenses and/or licensed articles have been entrusted regarding use, operation, possession, transportation and handling
  - Anyone having knowledge of an illegal export is obliged by law to stop it, if possible and report it promptly.
- Violations
  - Unlawful to: Export, attempt to export any defense Articles/technical data or furnish any defense service without a license or written approval from the U.S. Department of State.



# Civil Sanctions For Violations

- NASA
  - Fines - up to \$500,000 per Violation & Unlimited Additional Penalties
- LSP and Contractors
  - Interim Suspension of any exporting - Up to 60 Days
  - Administrative Debarment from Business with U.S. Government - usually for 3 years.
  - Loss of future business, due to the notoriety gained by being identified as having past export violations.
  - Fines - up to \$500,000 per Violation & Unlimited Additional Penalties



# Criminal Penalties For Violations

- For Willful Violations
  - Statutory Debarment - for 3 years
  - Individual Fines - up to \$1,000,000 AND/OR 10 years in prison!!



# Export Considerations For GLAST



# Technology Transfer Control Plan

- The requirements for a Technology Transfer Control Plan are dictated in NPG 2190 A, Section 3.5;
  - A Technology Transfer Control Plan (TTCP) is a brief document, intended to serve as an aid and a guide to Program and Project Managers, as well as other NASA officials and contractors involved in an international activity. The TTCP responds to four fundamental sets of questions that NASA officials and contractors working with foreign nationals in a NASA program or project should ask:
    - 1) What technologies, software, or hardware am I working with that are subject to export control?
    - 2) What foreign nationals (and what nations) am I working with?
    - 3) What technologies, software, or hardware do I need to provide to those foreign nationals, according to the agreement or contract governing this activity? Which ones do I need to protect?
    - 4) How will I provide those export-controlled technologies, software, or hardware to those foreign nationals with whom I am working? How will I protect export-controlled technologies, software, or hardware from unauthorized transfer?



# Technology Transfer Control Plan (continued)

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- If a NASA program or project will not export software or hardware and will disclose only publicly available information to all participating foreign entities, a TTCP would not be necessary or appropriate. However, if a NASA activity will export hardware or software, or will transfer or disclose export-controlled technology or software, to a foreign party, then a TTCP is an appropriate and useful tool to ensure that all persons participating in the activity understand what export-controlled items are involved, what foreign entities are involved, what export-controlled items NASA must provide to those foreign entities under the terms and conditions of the cooperation, and how those items will be transferred to those foreign entities (including the means of transfer and appropriate markings, as required by the governing international agreement or contract).
- NASA Program and Project Managers should consult with their Center Export Administrator (CEA), or the Headquarters Export Administrator (HEA), as appropriate, in the development of TTCP's for their programs that involve foreign participation and exports.
- A sample TTCP appears in Appendix B of NPG 2190 A.





# Known Agreement and Licensing needs

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- International Agreement between NASA and any foreign partners, sufficient in scope to cover all aspects of the mission
- An associated work plan, with the details
- Mission Technology Transfer Control Plan
  - Each Program and Project element produces their own plan.



# Possible Agreement or Licensing needs (prior to Launch Campaign)

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- In order to assess whether contractors and the Launch Service Provider needs to obtain a license or agreement, it is necessary to answer a few questions;
  - Prior to S/C arrival at the launch site, who will the foreign partner interface with?
    - » S/C Program only?
    - » Launch Services personnel (Mission Analysis, Vehicle Systems Engineering, Comm & Telemetry).
    - » Launch Service Provider personnel?
  - Will there be CDRL sharing, in whole or in part between the foreign partner and LSP personnel or NASA contractors (I.e. coupled loads analysis, trajectory and performance analysis, ICD's, thermal analysis, compatibility drawings, schedules, etc.)?
  - Will the foreign partner be participating in MIWGs/GOWGs/TIMs, Integration telecons?



# Possible Agreement or Licensing needs (Launch Campaign)

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- Assessing whether contractors and the Launch Service Provider needs to obtain a license or agreement...few questions (continued);
  - Will the foreign partner be working at the launch site?
    - » If so, who will the foreign partner interface with for launch site integration?
      - S/C Program only?
      - Launch Services personnel (Mission Analysis, Vehicle Systems Engineering, Comm & Telemetry).
    - » Will the foreign partner be needing access to the pad?
    - » What buildings will they need access to?
    - » Will the foreign partner attend the LV or S/C readiness reviews or FRR or LRR?
    - » Where will the foreign partner be on console in Hangar AE during launch?



# Meetings

- Meeting Facilitators have the responsibility for ensuring that the following conditions are met:
  - If a foreign person, or a U.S. citizen representing a foreign entity, will attend, there must be a license or agreement already in place for them to attend or otherwise participate in the meeting.
  - That license or agreement has to cover the technical data that will be presented and discussed.
  - The license or agreement may be NASA's or a contractor's or both, and the license or agreement must be in effect (i.e., NOT expired).



# Meetings (continued)

- Pass around a sign in sheet that includes citizenship check box
- Assess whether a foreign person is present
- Lay out the ground rules from the start by reminding attendees:
  - That export-controlled technical data will be presented or discussed
  - Whether recording devices will be allowed
  - And whatever else you deem relevant.
- Remind the presenters to keep their answers short and to the point when answering questions. You should also remind the presenters that they are responsible for guiding questions and discussions away from inappropriate topics.
- Take careful notes for the minutes. And be sure to follow the agenda. By sticking to it, you'll find it easier to keep presenters, question and answer sessions, and other conversations on track.



# Meetings (continued)

- Meeting minutes, copies of presentations, handouts, etc. may contain export-controlled technical data. As the facilitator, it is your responsibility to:
  - Make sure that meeting materials are properly marked, and are not distributed to anyone who may improperly export them.
  - Check over your notes and meeting minutes for export-controlled technical data.



# Record Keeping

- Collect your notes, minutes, presentation materials, etc., and file them for five years, as you would for exports.
- Our export control laws and regulations require us to record all exports and to retain records for five years.
  - This includes exports made as discussions and ongoing work done under international agreements, licenses, TAA's, etc., as well as specific events like meetings, telecons, and phone calls, where there is no hard copy of the specific information shared.
  - KSC has an Export Control Recording System
    - » [http://exportcontrolcf.ksc.nasa.gov/record\\_form.cfm](http://exportcontrolcf.ksc.nasa.gov/record_form.cfm)
    - » Other programs and contractors should consult their export representative on their local process.



# What is “Technical Data”?

- “Technical Data” defined:
  - Any information required for the design, development, production, manufacture, assembly, operations, repair, testing, maintenance or modification of defense articles.
  - Includes: documents, software, blueprints, photos, plans, instructions, know-how (verbally, through demonstration or through email, mail) etc.
  - ALL classified information, regardless of subject or content.
- Technical data controlled by the USML:
  - directly related to the manufacturing or production of any article in the USML
  - all detailed design, development, manufacturing and production, technical data or any specifically designed or modified component, part or accessory, attachment or associated equipment for satellites, or launch vehicles, including interfaces between the two
  - technical data for all launch support activities (form, fit, function, mass, electrical, mechanical, dynamic, environmental, etc.)





# What is NOT “Technical Data”?

- Information ‘in the public domain’:
  - Information that is published and accessible or available to the Public without restrictions.
- For example:
  - Published Books & Magazines
  - Data that has been approved for “Public Release” (need to prove approval)
  - General scientific, mathematical or engineering principles (not advanced in nature, kind you can get in any open university)
  - Basic marketing information:
    - » Information on function, purpose and general description of defense articles



# Common Ways of Transferring Technical Data

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- Communicating with Resident "Foreign Persons," including Launch Vehicle employees, at Launch Vehicle Facilities
- Transferring written materials (by mail, electronically, etc.), whether by ones self, to to another person with knowledge they will do the transfer
- Discussions at MIWGs/GOWGs, telecons
- Sharing "how much I know" in side conversation



# Common Ways of Transferring Technical Data - (continued)

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- Using Electronic Media
  - Faxes & Telephones
  - Internet, email & Computer Networks (servers)
  - Video-conferencing
- Traveling Abroad with Laptop Computers or Documents
- Meetings & telephone discussions with foreign customers and suppliers abroad or in the US.
- Visits to foreign countries.
- Visits to US based facilities by “foreign persons”



# Marking Technical Data

- For Export Controlled Presentations:

Extract from NPG2190.1, Section 1.2.40 (abbreviated for the things that apply to technical data directly).

“This (item description) is subject to the export control laws and regulations of the United States of America and is being exported from the United States to (name of foreign recipient) in accordance with (cite international agreement or contract) and U.S. export laws and regulations and are to be used by (name of authorized foreign recipients) only for the purposes of fulfilling their responsibilities under (cite international agreement or contract) and shall not be retransferred to any other entity without the prior written permission of NASA.”

- The fill in the blank information comes from the International Agreement
- If the LSP or contractor also has a TAA in place for the mission, that number should be marked as well



# **Summary:**

## **Four steps to export compliance**



# Four Steps to Compliance

## STEP 1

- Identify any export or import activities you are planning to perform.
  - Transferring defense articles, defense services or technical data to foreign persons.
  - Watch for Technical Data Transfers!
- Identify foreign persons and the extent of their involvement in the mission phases.



# Four Steps to Compliance

## STEP 2

- Get export authorization and TTCP's in place.
  - Each program element is responsible for seeking and securing export authorization in advance of the planned export (both NASA and contractors)
  - Each program element is responsible for developing a Technology Transfer Control Plan (TTCP)
  - Notify contractors of licensing requirements



# Four Steps to Compliance

## STEP 3

- Conduct the export in accordance with the agreement, license or exemption.
  - Make sure the authorization is in effect.
  - Act only within Limitations & Provisos, if applicable (TAA's, Licenses)





# Four Steps to Compliance

## STEP 4

- Record exports as they happen
  - Record export dialogue in a summary form.
  - Keep hard copies of shipping documents and technical data transmissions for five years after last export.